

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Wedge Group, LLC

Manufacturing Extension Partnership of Louisiana

Wedge Cup Empowers Disabled Veterans, Citizens

Client Profile:

The Wedge Group, a husband and wife team of Bryan and Laurella Bergeron, is the sole manufacturer of the Wedge Cup, a product for people with disabilities. The privately-owned company employs 2 people at its facility in Des Allemands, Louisiana.

Situation:

When drinking from a cup, the cup can only tilt so far until the top rim hits the bridge of the nose. A person then tilts his head back in order to finish the beverage. People with disabilities that are not able to tilt their heads back have to constantly battle spilling on themselves or simply can't finish the bottom portion of the liquid. Bryan Bergeron witnessed this struggle firsthand with his older brother who has spinal meningitis. After speaking with various doctors about the problem, Bergeron decided to make a prototype of a cup with a wedge inside the cylinder angled down to the bottom, resulting in the contents of the cup being completely drained at a 60 degree tilt. Bergeron contacted the Manufacturing Extension Partnership of Louisiana's (MEPOL), a NIST MET network affiliate, Polymer Services Project Director, Rebecca Scherff, for assistance in designing and building prototypes of the cup using the FDM Rapid Prototyping machine at the University of Louisiana at Lafayette.

Solution:

Working with a third party provider and MEPOL client Christian Plastics, the Wedge Cup went through multiple design modifications before a final design was chosen. The cup has six parts that MEPOL built individually in the prototyping lab. "Having a prototype with moving, working parts helps the client to analyze and test the design, recognize potential flaws, and troubleshoot problems that may arise," said Scherff. In total, MEPOL built 36 parts for the Wedge Cup throughout the design process. Once the design was complete, MEPOL tapped into its third party network again and called Tech Tooling to create the four cavity molds needed for the cup. Through the Small and Emerging Business Development grant, Tech Tooling created several component molds. Tech Tooling then molded 150 cups to be used at the Veterans Administration Speech and Language Pathologist National Convention, which was held mid- April 2008. At the conference, Bergeron garnered more than 100 leads and handed out just as many cups to attendees for further marketing studies. The response was very positive. Attendees were commenting on the superior design of the Wedge Cup not only for the unique design and the 60 degree tilt factor, but also because of the flow of thicker liquids. "The cup was initially meant for people with permanent disabilities, but can also be used for temporary ailments such as a sprained shoulder or a broken neck. The market is wide open for us," commented Bergeron.

The product has endless applications. A wedge can be inserted into a variety of liquid containers, such as cooking oils, gas cans, and chemical drums and can empty every drop in a container without having to tilt it over. The implications in safety, environmental and other common concerns within industry are endless.

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Results:

- * Realized \$38,000 in cost savings.
- * Projected sales of \$600,000.

Testimonial:

"MEPOL helped us tremendously throughout this project. They helped us with funding sources, engineering and prototyping of the cups. We're looking forward to working with MEPOL on other projects, and are truly grateful for their help. Without MEPOL, we wouldn't have been able to get this far."

Laurella Bergeron, Owner